

11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

> 9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

(425) 420-9200 (509) 924-9200 (503) 906-9200

(541) 383-9310

FAX 420-9210

924-9290

Fax 906-9210 FAX 382-7588

CHAIN OF CUSTODY REPORT

Work Order #: M106070

CLIENT: BRISTOL					INVO	ICE TO):										O REQUEST in	Business D	avs*
	VRANGINETT	FR			-	IST											ic & Inorganic Ana		
ADDRESS: AMCHI	TKA ISLANI), ALI	452	A		1 (10 7		4 3 Im Hydrocarbon Ai	2 1	< 1
PHONE: 907.770	.0974 FAX:	770.	09-	75	PO N	IIIMBE	R 2	100	10			-			510.		3 2	1 <1	
PROJECT NAME: PMC	HITKA				111011		- College	ED ANA	1	3		-			ST	D.	Please Sp	ecify	1
PROJECT NUMBER: 2 (3													ОТН			
SAMPLED BY:			3 4	3											*Turnare	ound Requests	less than standard may	incur Rush Ch	arges.
CLIENT SAMPLE	SAMPLING	0	14	1					-						MATRIX	# OF			NCA WO
IDENTIFICATION	DATE/TIME		4	I											(W, S, O)	CONT.	COMME	NTS	ID
1.0/ANAL105SL	6/23/01 1400	, X	Y												5	2			
2.0/AMA1106SL	6/23/01 1405	: X	4												S	2			
3. DIAMA1107SL	6/23/01 1410	X	X												5	2.			
4.01AMA1108SL	6/23/01 1415	5 X	X												5	2			
5.01AMA1109SL	6/23/01/142	0		X											S	\			
6.																			
7.																			
8.																			
9.																			
10.									,										
11.																			
12.																	-		
13.		12.									``}								
14.											-								13
15.	MONVO						à					0	0						
RELINQUISHED BY:		00	C			6/2		RECEI	VED BY	Cro	219		STA S		۸١.	. 1	<u> </u>	DATE:	0 33101
	Marshall FIRM	BRU	215			154	4		NAME:			T.	uig	Bra	LEFIRM:	NU	4	TIME:	1544
RELINQUISHED BY: PRINT NAME:	FIRM				DATE: TIME:				VED BY	:			,		EIDA			DATE:	*
ADDITIONAL REMARKS:	FIRM				TIME:		· · · · · · · · · · · · · · · · · · ·	FKINI	NAME:				. >		FIRM:			TIME:	* **
COC REV 3/99																	TEMP:	PAGE	OF



425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

6 December, 2001

Anne Kranawetter Bristol Environmental & Engineering 2000 W International Airport C#1 Anchorage, AK 99502-1116

RE: Amchitka

Enclosed are the results of analyses for samples received by the laboratory on 06/23/01 15:44. If you have any questions concerning this report, please feel free to contact me.

This report was recreated from a previously issued final report in order to provide an electronic copy. The final report used for these electronic copies may have been previously issued as an amended report due to client requested changes to sample names, etc. No data has changed since submission of the previously issued final, or amended, report.

Sincerely,

Stephen Wilson

Environmental Group Leader

112

Work Orders included in this report:

M106070



425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering Project: Amchitka 2000 W International Airport C#1 Project Number: 21090

Reported: 06/25/01 08:45

Anchorage, AK 99502-1116 Project Manager: Anne Kranawetter

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
01AMA1105SL	M106070-01	Soil	06/23/01 14:00	06/23/01 15:44
01AMA1106SL	M106070-02	Soil	06/23/01 14:05	06/23/01 15:44
01AMA1107SL	M106070-03	Soil	06/23/01 14:10	06/23/01 15:44
01AMA1108SL	M106070-04	Soil	06/23/01 14:15	06/23/01 15:44
01AMA1109SL	M106070-05	Soil	06/23/01 14:20	06/23/01 15:44

C. O. C. # 107

North Creek Analytical - Mobile Lab



Anchorage, AK 99502-1116

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-9223

425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering Project: Amchitka
2000 W International Airport C#1 Project Number: 21090

Reported: 06/25/01 08:45

Project Manager: Anne Kranawetter

Hydrocarbon Identification per NW-TPH Methodology North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA1109SL (M106070-05) Soil					Sampled: 06/	23/01 Rece	eived: 06/23/	01	
Gasoline Range Hydrocarbons	ND	9.76	mg/kg	1	NWTPH HCII	06/23/01	06/23/01	0106074	
Diesel Range Hydrocarbons	ND	24.4	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	48.8	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	99.6 %	50-150							

North Creek Analytical - Mobile Lab

Styl Lil



425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W International Airport C#1

Project: Amchitka Project Number: 21090

Reported:

Anchorage, AK 99502-1116 Project Manager: Anne Kranawetter

06/25/01 08:45

Diesel Hydrocarbons (C10-C25) per AK102 North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA1105SL (M106070-01) Soil					Sampled: 06	/23/01 Rece	ived: 06/23/	01	
Diesel Range Organics	ND	150	mg/kg dry	1	AK 102	06/23/01	06/24/01	0106075	
Surr: 1-Chlorooctadecane	90.2 %	50-150							
Surr: Triacontane	88.1 %	50-150							
01AMA1106SL (M106070-02) Soil					Sampled: 06	/23/01 Rece	ived: 06/23/	01	
Diesel Range Organics	ND	150	mg/kg dry	1	AK 102	06/23/01	06/24/01	0106075	
Surr: 1-Chlorooctadecane	85.9 %	50-150							
Surr: Triacontane	91.1 %	50-150							
01AMA1107SL (M106070-03) Soil					Sampled: 06	/23/01 Rece	ived: 06/23/	01	
Diesel Range Organics	ND	150	mg/kg dry	1	AK 102	06/23/01	06/24/01	0106075	
Surr: 1-Chlorooctadecane	92.2 %	50-150							
Surr: Triacontane	78.8 %	50-150							
01AMA1108SL (M106070-04) Soil					Sampled: 06	/23/01 Rece	ived: 06/23/	01	
Diesel Range Organics	ND	150	mg/kg dry	1	AK 102	06/23/01	06/24/01	0106075	
Surr: 1-Chlorooctadecane	80.5 %	50-150							
Surr: Triacontane	82.4 %	50-150							

North Creek Analytical - Mobile Lab



Anchorage, AK 99502-1116

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-9223

425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering Project: Amchitka 2000 W International Airport C#1 Project Number: 21090

Project Number: 21090 **Reported:**Project Manager: Anne Kranawetter 06/25/01 08:45

BTEX,MTBE and Naphthalene per EPA Method 8021B North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes	
01AMA1105SL (M106070-01) Soil					Sampled: 06/	/23/01 Rece	eived: 06/23/	01		
Benzene	ND	0.0577	mg/kg dry	50	!1B BTEX/MT	Π 06/24/01	06/24/01	0106080		
Toluene	ND	0.231	"	"	"	"	"	"		
Ethylbenzene	ND	0.231	"	"	"	"	"	"		
Xylenes (total)	ND	0.461	"	"	"	"	"	"		
Naphthalene	ND	2.31	"	"	"	"	"	"		
Surr: 4-BFB	77.2 %	50-150								
01AMA1106SL (M106070-02) Soil					Sampled: 06/23/01 Received: 06/23/01					
Benzene	ND	0.0415	mg/kg dry	50	!1B BTEX/MT	Π 06/24/01	06/24/01	0106080		
Toluene	ND	0.166	"	"	"	"	"	"		
Ethylbenzene	ND	0.166	"	"	"	"	"	"		
Xylenes (total)	ND	0.332	"	"	"	"	"	"		
Naphthalene	ND	1.66	"	"	"	"	"	"		
Surr: 4-BFB	84.4 %	50-150								
01AMA1107SL (M106070-03) Soil					Sampled: 06/	/23/01 Rece	eived: 06/23/	01		
Benzene	ND	0.0394	mg/kg dry	50	!1B BTEX/MT	Π 06/24/01	06/24/01	0106080		
Toluene	ND	0.158	"	"	"	"	"	"		
Ethylbenzene	ND	0.158	"	"	"	"	"	"		
Xylenes (total)	ND	0.315	"	"	"	"	"	"		
Naphthalene	ND	1.58	"	"	"	"	"	"		
Surr: 4-BFB	85.3 %	50-150								
01AMA1108SL (M106070-04) Soil					Sampled: 06/	/23/01 Rece	eived: 06/23/	01		
Benzene	ND	0.0492	mg/kg dry	50	!1B BTEX/MT	Π 06/24/01	06/24/01	0106080		
Toluene	ND	0.197	"	"	"	"	"	"		
Ethylbenzene	ND	0.197	"	"	"	"	"	"		
Xylenes (total)	ND	0.393	"	"	"	"	"	"		
Naphthalene	ND	1.97	"	"	"	"	"	"		
Surr: 4-BFB	79.5 %	50-150								

North Creek Analytical - Mobile Lab



425.420.9200 fax 425.420.9210 **Spokane** East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W International Airport C#1 Project: Amchitka
Project Number: 21090

Reported:

Anchorage, AK 99502-1116

Project Manager: Anne Kranawetter

06/25/01 08:45

Physical Parameters per APHA/ASTM/EPA Methods North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit Units	Dilution	Method Prepared Analyzed Batch Notes
01AMA1105SL (M106070-01) Soil				Sampled: 06/23/01 Received: 06/23/01
% Solids	82.3	0.0100 % by Weigh	t 1	Gravimetric 06/23/01 06/24/01 0106076
01AMA1106SL (M106070-02) Soil				Sampled: 06/23/01 Received: 06/23/01
% Solids	87.6	0.0100 % by Weigh	t 1	Gravimetric 06/23/01 06/24/01 0106076
01AMA1107SL (M106070-03) Soil				Sampled: 06/23/01 Received: 06/23/01
% Solids	87.7	0.0100 % by Weigh	t 1	Gravimetric 06/23/01 06/24/01 0106076
01AMA1108SL (M106070-04) Soil				Sampled: 06/23/01 Received: 06/23/01
% Solids	89.2	0.0100 % by Weigh	t 1	Gravimetric 06/23/01 06/24/01 0106076

North Creek Analytical - Mobile Lab



425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290 **Portland** 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210 **Bend** 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W International Airport C#1

Project: Amchitka Project Number: 21090

Reported:

Anchorage, AK 99502-1116

Project Manager: Anne Kranawetter

06/25/01 08:45

Hydrocarbon Identification per NW-TPH Methodology - Quality Control

North Creek Analytical - Mobile Lab

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 0106074 - TPH-HCID (WA)

Blank (0106074-BLK1)		Prepared & Analyzed: 06/23/01						
Gasoline Range Hydrocarbons	ND	10.0	mg/kg	Trepared &	Allaryzed. 00/2	.5/01		
Diesel Range Hydrocarbons	ND	25.0	mg/kg					
Heavy Oil Range Hydrocarbons	ND	50.0	"					
Surr: 1-Chlorooctadecane	11.3	30.0	"	10.0	113	50-150		

North Creek Analytical - Mobile Lab



425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W International Airport C#1

Project: Amchitka Project Number: 21090

Reported: 06/25/01 08:45

Anchorage, AK 99502-1116

Project Manager: Anne Kranawetter

Diesel Hydrocarbons (C10-C25) per AK102 - Quality Control

North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0106075 - 3545 ASE										
Blank (0106075-BLK1)				Prepare	d: 06/23/0	1 Analyz	ed: 06/24/0)1		
Diesel Range Organics	ND	150 1	mg/kg wet							
Surr: 1-Chlorooctadecane	21.9		"	23.4		93.6	50-150			
Surr: Triacontane	17.6		"	23.4		75.2	50-150			
LCS (0106075-BS1)				Prepare	d: 06/23/0	1 Analyz	ed: 06/24/0)1		
Diesel Range Organics	1310	150 1	mg/kg wet	1250		105	75-125			
Surr: 1-Chlorooctadecane	29.4		"	23.4		126	50-150			
Surr: Triacontane	20.2		"	23.4		86.3	50-150			
LCS Dup (0106075-BSD1)				Prepare	d: 06/23/0	1 Analyz	ed: 06/24/0)1		
Diesel Range Organics	1310	150	mg/kg wet	1250	•	105	75-125	0	20	•
Surr: 1-Chlorooctadecane	27.1		"	23.4		116	50-150			
Surr: Triacontane	19.5		"	23.4		83.3	50-150			

Matrix Spike (0106075-MS1)	e: M106067-01	Prepared	zed: 06/24/01			
Diesel Range Organics	1820	150 mg/kg dry	1760	ND	98.6	60-140
Surr: 1-Chlorooctadecane	37.8	"	33.0		115	50-150
Surr: Triacontane	27.5	"	33.0		83.3	50-150

North Creek Analytical - Mobile Lab



425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering

Project: Amchitka 2000 W International Airport C#1 Project Number: 21090

Reported:

Anchorage, AK 99502-1116

Project Manager: Anne Kranawetter

06/25/01 08:45

BTEX,MTBE and Naphthalene per EPA Method 8021B - Quality Control

North Creek Analytical - Mobile Lab

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 0106080 - MeOH Extraction					
Blank (0106080-BLK1)			Prepared & A	nalyzed: 06/24/0	01
Benzene	ND	0.0250 mg/kg wet			
Toluene	ND	0.100 "			
Ethylbenzene	ND	0.100 "			
Xylenes (total)	ND	0.200 "			
Naphthalene	ND	1.00 "			
Surr: 4-BFB	2.23	"	2.50	89.2	50-150
LCS (0106080-BS1)			Prepared: 06/2	24/01 Analyzed:	: 12/25/01
Benzene	2.14	0.0250 mg/kg wet	2.50	85.6	59-138
Toluene	2.15	0.100 "	2.50	86.0	53-151
Ethylbenzene	2.32	0.100 "	2.50	92.8	51-141
Xylenes (total)	6.53	0.200 "	7.50	87.1	52-141
Naphthalene	2.86	1.00 "	2.50	114	55-135
Surr: 4-BFB	2.32	"	2.50	92.8	50-150

North Creek Analytical - Mobile Lab



425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W International Airport C#1 Project Number: 21090

Project Manager: Anne Kranawetter

Reported: 06/25/01 08:45

Notes and Definitions

Project: Amchitka

DET Analyte DETECTED

Anchorage, AK 99502-1116

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.

wet Sample results reported on a wet weight basis (as received)

RPD Relative Percent Difference

North Creek Analytical - Mobile Lab

Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			Report recreated from:
			\\sisters\elmnt\Report\M106070 FINAL 06 25 01
			0845.mdb
			Default Report (not modified)